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6	1	jp2002310132a	USPAT;	2004/07/26 11:11
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7	41	(viscous or fluid or grease or oil or hydraulic) with (damper or	USPAT;	2004/07/26 11:16
		dampener) and 16/221-392.ccls.	US-PGPUB	
9	4	1 ' '	USOCR	2004/07/26 11:17
_		(damper or dampener) and 16/221-392.ccls.		
8	42		USPAT;	2004/07/26 11:19
_		(damper or dampener) and 16/221-392.ccls.	US-PGPUB	
10	5	(viscous or fluid or grease or oil or liquid or hydraulic) with	USPAT;	2004/07/26 11:20
	_	(damper or dampener) and 16/303.ccls.	US-PGPUB	
11	21	1 ' '	USPAT:	2004/07/26 11:23
		16/303.ccls.	US-PGPUB	
12	1468		USPAT;	2004/07/26 11:24
1		same (damper or dampener) same (rotating or rotary)	US-PGPUB	
13	778		USPAT;	2004/07/26 11:25
-		with (damper or dampener) with (rotating or rotary)	US-PGPUB	
14	54	, , , , , , , , , , , , , , , , , , , ,	USPAT;	2004/07/26 11:26
		with (damper or dampener) with (rotating or rotary) and (cam\$6 or	US-PGPUB	
		step or stepped) with end with (shaft or plunger or rotors!)		

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[-	2 (("6530121") or ("d486833")).PN.	USPAT;	2004/07/25 13:04
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1_	1 6530121.URPN.	USPAT	2004/07/25 13:07
_	8 ("5697124"   "5704094"   "5715575"   "5966776"   "5996178"	USPAT	2004/07/25 13:07
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	US-6115886-\$ or US-5996178-\$ or US-5966776-\$ or		
	US-5715575-\$ or US-5704094-\$ or US-5697124-\$).did.		

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\*				
-	58	(rotors! or first adj rotor same second adj rotor) same (damper or	USPAT;	2004/07/25 13:32
		dampener) same (fluid or viscous)	US-PGPUB;	
	1	, ,	EPO; JPO;	
			DERWENT	
-	1	2004-399454.NRAN.	DERWENT	2004/07/25 13:23
-	5	(rotors! or first adj rotor same second adj rotor) same (damper or	USPAT;	2004/07/25 13:35
		dampener) same (fluid or viscous) and nifco.asn.	US-PGPUB;	
			EPO; JPO;	į
			DERWENT	
-	2	(US-4685232-\$).did. or (US-20030228918-\$).did. or	USPAT;	2004/07/26 05:50
		(JP-2004176806-\$).did.	US-PGPUB;	. 1
			EPO	0004/07/00 05 50
-	198	379/433.13.ccls.	USPAT;	2004/07/26 05:56
			US-PGPUB;	
	_ 1	.==.4	EPO	2004/07/26 05:53
-	59	455/\$.ccls. and (damper or dampener)	USPAT;	2004/01/20 05.55
			US-PGPUB; EPO	
			USPAT;	2004/07/26 05:59
-	4	379/433.13.ccls. and (viscous or fluid or grease or oil or	US-PGPUB;	2004/01/20 03.39
		hydraulic) with (damper or dampener or check or closure or	EPO	
		shook adj absorb\$4)	USPAT;	2004/07/26 05:59
-	. 1	cellphone and (viscous or fluid or grease or oil or hydraulic) with (damper or dampener or check or closure or shook adj absorb\$4)	US-PGPUB;	200-707720 00.00
		(damper of dampener of check of closure of shook adj absorby4)	EPO	
	150	(viscous or fluid or grease or oil or hydraulic) with (damper or	USPAT;	2004/07/26 06:00
-	150	dampener) same hinge	US-PGPUB;	200 1/01/25 00:00
		dampener) same minge	EPO EPO	
	14	(viscous or fluid or grease or oil or hydraulic) with (damper or	USPAT;	2004/07/26 06:11
-	14	dampener) same hinge same rotor	US-PGPUB;	
		dampener) same minge same rotor	EPO	
	798	(viscous or fluid or grease or oil or hydraulic) with (damper or	USPAT;	2004/07/26 06:11
-	190	dampener) same rotor	US-PGPUB;	
		dampenery dame rotor	EPO; JPO;	
			DERWENT;	
	İ		IBM TDB	
_	29	(viscous or fluid or grease or oil or hydraulic) with (damper or	USPAT;	2004/07/26 09:49
		dampener) same rotor and 16/\$.ccls.	US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
-	46	(viscous or fluid or grease or oil or hydraulic) with (damper or	USPAT;	2004/07/26 11:16
		dampener) and 16/221-392.ccls.	US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	2004/07/26 07:50
-	7	(viscous or fluid or grease or oil or hydraulic) with (damper or	USPAT;	2004/07/26 07:52
		dampener) and 16/330,303.ccls.	US-PGPUB; EPO; JPO;	
			DERWENT;	
			IBM_TDB	
	29	(viscous or fluid or grease or oil or hydraulic) with (damper or	USPAT;	2004/07/26 07:53
1-	29	dampener) same rotor and 16/\$.ccls.	US-PGPUB:	
		uampener) same rotor and 10/4.001s.	EPO; JPO;	
			DERWENT:	
			IBM TDB	
	53	(viscous or fluid or grease or oil or hydraulic) with (damper or	USPAT;	2004/07/26 09:17
-	33	dampener) with rotary and 16/\$.ccls.	US-PGPUB;	
		dampenery man ready and respective	EPO; JPO;	
			DERWENT;	
			IBM_TDB	
-	117	(16/54).CCLS.	USPAT;	2004/07/26 11:11
			US-PGPUB	
-	2198	(viscous or fluid or liquid or grease or oil or hydraulic) with	USPAT;	2004/07/26 09:52
		(damper or dampener) with (rotor or rotary or rotating or rotate)	US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	

	167	(viscous or fluid or liquid or grease or oil or hydraulic) with	USPAT:	2004/07/26 09:53
-	107	(damper or dampener) with (rotor or rotary or rotating or rotate)	US-PGPUB;	
		same (coaxial\$5 or concentric\$5)	EPO; JPO;	
		dulle (codicion construit)	DERWENT;	
			IBM TDB	
_	136	(viscous or fluid or liquid or grease or oil or hydraulic) with	USPAT;	2004/07/26 09:53
		(damper or dampener) with (rotor or rotary or rotating or rotate)	US-PGPUB;	
	1	same (coaxial\$5 or concentric\$5) with (rotor or rotary or rotating	EPO; JPO;	:
		or rotate)	DERWENT;	
			IBM_TDB	
-	2	(viscous or fluid or liquid or grease or oil or hydraulic) with	USPAT;	2004/07/26 09:54
		(damper or dampener) with (rotor or rotary or rotating or rotate)	US-PGPUB;	
		same (coaxial\$5 or concentric\$5) with (rotor or rotary or rotating	EPO; JPO;	
		or rotate) same stepped	DERWENT;	
		( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	IBM_TDB	2004/07/26 09:58
<b>-</b>	16		USPAT; US-PGPUB;	2004/07/20 09.56
		(damper or dampener) with (rotor or rotary or rotating or rotate)	EPO: JPO:	
		and (rotor or rotary or rotating or rotate) and stepped same rotor	DERWENT:	
			IBM TDB	
	0	6142269.pn. and (spring or bias\$4)	USPAT:	2004/07/26 09:59
_		0142203.pn. and (spring or biasy4)	US-PGPUB:	200 1/01/20 00100
			EPO; JPO;	
			DERWENT;	
			IBM TDB	
_	0	6142269.URPN.	USPAT	2004/07/26 09:59
-	3		USPAT	2004/07/26 09:59

# Butler, Douglas

PLUS 7/26/04

From:

**PLUS** 

Sent:

Monday, June 14, 2004 11:01 AM

To:

Butler, Douglas

Subject:

PLUS Results for 10662348

Here are the PLUS search results for 10662348.

This search was prepared by the staff of the Scientific and Technical Information Center, SIRA. If you have questions or comments about this search, please reply via email to PLUS@uspto.gov.











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PLUS Search Results for S/N 10662348, Searched June 14, 2004

The Patent Linguistics Utility System (PLUS) is a USPTO automated search system for U.S. Patents from 1971 to the present. PLUS is a query-by-example search system which produces a list of patents that are most closely related linguistically to the application searched. This search was prepared by the staff of the Scientific and Technical Information Center, SIRA.

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4445822	
4447220	
4450813	
4455499	

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4461534
4468604
4477760
4479404
4481766
4491340
4497167
4500269
4525123
4531079
RE31965
4534754
4535373
4544317
4553903
4557679
4562397
4562805
4562803
4564329
4570768
4575677
4577974
4580019
4611464
4616165
4626727
4756284
4773210
4784196
4795315
4830570
4831827
4837474
4847555
4853572
4854834
4866323
4880354
4881699
4900292).pn.
(4920293
4922406
4955791
4986740
5003686
5015149
5176261
5180225
5197861
5215436
5216339
5228828
5231284
5231342
5237247
5249918
5251833
5252039
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# 10662348\_CLS Most Frequently Occurring Classifications of Patents Returned From A Search of 10662348 on June 14, 2004

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Original Classifications
    123/216
     310/49R
  4
  4
     318/254
  3
     60/487
  3
     310/90
     360/97.03
  3
  2
     29/598
  2
    318/139
  2
    318/466
 2
    318/701
 2
    322/32
 2
    324/161
 2
    415/112
 2
    415/115
 2
    417/204
 2
    417/42
    433/132
Cross-Reference Classifications
  6 310/268
 6 310/42
 5 318/254
 4 123/242
   310/112
   310/114
 4
    310/67R
 4
    360/98.07
    360/99.08
 3
    91/485
 3
   310/198
 3
   310/68R
 3
   310/90
 3
   318/138
 3
    415/111
 3
    417/205
 3
    417/410.3
 2
    29/596
 2
    29/598
 2
   180/65.7
 2
    180/65.8
 2
    277/318
 2
    277/375
 2
    277/408
 2
    310/115
 2
    310/156.36
 2
    310/162
 2
    310/179
 2
    310/185
 2
    310/89
 2
    318/539
 2
    324/166
 2
    360/133
 2
    366/89
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384/110

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384/448
     415/113
     415/176
  2
     415/199.5
  2
     415/229
  2
     415/230
     415/231
415/26
415/49
  2
  2
  2
     416/114
416/96A
  2
  2
  2
     416/97R
     417/203
417/269
  2
  2
     417/423.12
  2
  2
     417/45
  2
     417/462
  2
     417/486
  2
     418/201.1
  2
     425/379.1
  2
     433/126
Combined Classifications
  9 318/254
  6 310/268
  6 310/42
    310/90
    123/216
    123/242
    310/114
    310/49R
    310/67R
     360/98.07
     29/598
     310/112
    360/99.08
  3
      29/596
  3
      60/487
  3
     91/485
  3
    310/162
  3 310/198
 3
    310/68R
 3
    318/138
 3
    360/97.03
 3
    415/111
 3
    417/205
 3
    417/410.3
 3
    417/462
 3
     418/201.1
 2
    123/450
 2
    180/65.7
 2
     180/65.8
 2
     267/140.12
 2
     267/140.13
 2
     277/318
 2
     277/375
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277/408

310/115 310/156.32 2 310/156.36 2 310/166 2 310/178 2 310/179 2 310/185 2 310/254 2 310/261 2 310/40MM 2 310/68B 2 310/89 2 318/139 2 318/466 2 318/539 2 318/696 2 318/701 2 318/773 2 322/32 2 324/161 2 324/166 2 360/133 2 366/147 2 366/84 2 366/89 2 384/107 2 384/110 2 384/448 2 415/108 2 415/112 2 415/113 2 415/115 2 415/176 2 415/199.5 2 415/229 415/230 2 415/231 2 2 415/26 415/49 2 2 416/114 416/96A 2 2 416/97R

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417/203

417/204

417/269

417/423.12

417/42

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417/486

433/126

433/132 494/37

425/379.1

Titles of Most Frequently Occurring Classifications of Patents Returned From A Search of 10662348 on June 14, 2004

```
9 318/254
               (4 OR, 5 XR)
               318 : ELECTRICITY: MOTIVE POWER SYSTEMS
       Class
                     SELF-COMMUTATED IMPULSE OR RELUCTANCE MOTORS
       318/254
               (0 OR, 6 XR)
  310/268
               310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
       Class
       310/10
                    DYNAMOELECTRIC
                    .Rotary
       310/40R
       310/261
                    ..Rotor structure
       310/264
                     ...Armatures
       310/268
                     ....Disc
               (0 OR, 6 XR)
310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
  310/42
       Class
        310/10
                     DYNAMOELECTRIC
        310/40R
                     .Rotary
                     ..With assembling, metal casting or machining
        310/42
                        feature
                (3 OR, 3 XR)
 310/90
               310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
       Class
        310/10
                     DYNAMOELECTRIC
        310/40R
                     .Rotary
                    ..With other elements
        310/66
                     ...Bearing or air-gap adjustment or bearing
        310/90
                        lubrication
 123/216
                (4 OR, 1 XR)
        Class 123 : INTERNAL-COMBUSTION ENGINES
        123/200
                     ROTARY
        123/216
                     .With charge treatment means
                (1 OR, 4 XR)
5 123/242
        Class 123 : INTERNAL-COMBUSTION ENGINES
        123/200
                     ROTARY
                     .With compression, combustion, and expansion in
        123/241
                         a single variable volume
        123/242
                     ..Planetating rotor
                (1 OR, 4 XR)
5 310/114
               310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
        Class
                     DYNAMOELECTRIC
        310/10
        310/40R
                     .Rotary
        310/114
                     ..Plural rotary elements
5 310/49R
                (4 OR, 1 XR)
               310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
        Class
        310/10
                     DYNAMOELECTRIC
        310/40R
                     .Rotary
        310/46
                     .. Magnetic motors
        310/49R
                     ...Step-by-step
5 310/67R
                (1 OR, 4 XR)
        Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
        310/10
                      DYNAMOELECTRIC
```

.Rotary 310/40R 310/66 ..With other elements 310/67R ...Inbuilt or incorporated unit (1 OR, 4 XR) 5 360/98.07 360 : DYNAMIC MAGNETIC INFORMATION STORAGE OR Class RETRIEVAL 360/88 RECORD TRANSPORT WITH HEAD STATIONARY DURING TRANSDUCING .Disk record 360/97.01 360/98.01 ..Plural disks 360/98.07 ... Rotational drive detail (2 OR, 2 XR) 29/598 029 : METAL WORKING Class METHOD OF MECHANICAL MANUFACTURE 29/592 .Electrical device making 29/592.1 29/596 ..Dynamoelectric machine 29/598 ...Rotor (0 OR, 4 XR) 310/112 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE Class 310/10 DYNAMOELECTRIC 310/40R .Rotary 310/112 ..Plural units, structurally united 360/99.08 (0 OR, 4 XR) Class 360 : DYNAMIC MAGNETIC INFORMATION STORAGE OR RETRIEVAL 360/88 RECORD TRANSPORT WITH HEAD STATIONARY DURING TRANSDUCING 360/97.01 .Disk record 360/99.08 .. Rotational drive detail 29/596 (1 OR, 2 XR) 029 : METAL WORKING Class 29/592 METHOD OF MECHANICAL MANUFACTURE 29/592.1 .Electrical device making 29/596 ..Dynamoelectric machine 3 60/487 (3 OR, 0 XR) Class 060 : POWER PLANTS 60/325 PRESSURE FLUID SOURCE AND MOTOR 60/487 .Input pump and rotary output motor system having displacement varying type of direction or speed selector 3 91/485 (0 OR, 3 XR) 091 : MOTORS: EXPANSIBLE CHAMBER TYPE Class 91/472 THREE OR MORE CYLINDERS ARRANGED IN PARALLEL RADIAL OR CONICAL RELATIONSHIP WITH ROTARY TRANSMISSION AXIS 91/484 .Control valve seating surface contact maintained by fluid pressure bias 91/485 ..Disc valve 310/162 (1 OR, 2 XR) Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE 310/10 DYNAMOELECTRIC

### 10662348 CLSTITLES 310/40R .Rotary ..A.C. 310/159 310/162 ...Synchronous (0 OR, 3 XR) 3 310/198 Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE DYNAMOELECTRIC 310/10 .Rotary 310/40R ..Windings and core structure 310/179 ...Armature or primary 310/195 310/198 ....Plural windings (0 OR, 3 XR) 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE 3 310/68R Class 310/10 DYNAMOELECTRIC .Rotary 310/40R ..With other elements 310/66 ... Electric circuit elements 310/68R (0 OR, 3 XR) 318 : ELECTRICITY: MOTIVE POWER SYSTEMS 318/138 Class SPACE-DISCHARGE-DEVICE COMMUTATED MOTOR 318/138 360/97.03 (3 OR, 0 XR) 360 : DYNAMIC MAGNETIC INFORMATION STORAGE OR Class RETRIEVAL RECORD TRANSPORT WITH HEAD STATIONARY DURING 360/88 TRANSDUCING 360/97.01 .Disk record .. Environmental control (e.g., air filter, 360/97.02 temperature control) ...Plural disks 360/97.03 (0 OR, 3 XR) 3 415/111 Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS WITH LUBRICATING, SEALING, PACKING OR BEARING 415/110 MEANS HAVING INTERNAL WORKING FLUID CONNECTION (E.G., FL UID OR FLUID BIASED SEAL, ETC.) 415/111 .For shaft sealing, packing, lubricating or bearing means 3 417/205 (0 OR, 3 XR) Class 417: PUMPS 417/199.1 DIVERSE PUMPS 417/205 .Series 417/410.3 (0 OR, 3 XR) Class 417: PUMPS MOTOR DRIVEN 417/321 .Electric or magnetic motor 417/410.1 417/410.3 ..Rotary expansible chamber pump

.. Unidirectionally rotating cylinder

3 417/462

(1 OR, 2 XR)

EXPANSIBLE CHAMBER TYPE

.Moving cylinder

Class 417 : PUMPS

417/437

417/460 417/462

```
(1 OR, 2 XR)
    418/201.1
         Class 418: ROTARY EXPANSIBLE CHAMBER DEVICES
                      INTERENGAGING ROTATING MEMBERS
          418/191
          418/201.1
                      .Helical or herringbone
   123/450
                  (1 OR, 1 XR)
                  123 : INTERNAL-COMBUSTION ENGINES
         Class
          123/434
                       CHARGE FORMING DEVICE (E.G., POLLUTION CONTROL)
          123/445
                        .Fuel injection system
                        .. Fuel pump flow regulation
          123/446
                        ... Sequential distributor
          123/448
          123/450
                        ....Rotary distributor
                   (0 OR, 2 XR)
    180/65.7
          Class
                 180 : MOTOR VEHICLES
          180/54.1
                        POWER
          180/65.1
                        .Electric
          180/65.6
                        ..With gearing between electric motor and drive
                            wheel
                        ... Gearing is a changeable ratio gearing
          180/65.7
                   (0 OR, 2 XR)
    180/65.8
                  180 : MOTOR VEHICLES
          Class
          180/54.1
                        POWER
          180/65.1
                        .Electric
                        .. With electronic devices (logic gates,
          180/65.8
                           semi-conductors, vacuum tubes, etc.) in control circuit
  2 267/140.12
                   (1 OR, 1 XR)
          Class
                  267 : SPRING DEVICES
                        RESILIENT SHOCK OR VIBRATION ABSORBER
          267/136
                        .Including energy absorbing means or feature
          267/140.11
                            (e.g., supplemental vehicle equipment, such as motor mou
nt,
                            seat, etc., including additional fluid or friction energ
У
                            absorber)
                        .. Having concentric coaxial spring between
          267/140.12
                           plural confining means for radial force
    267/140.13
                   (1 OR, 1 XR)
                  267 : SPRING DEVICES
          Class
          267/136
                        RESILIENT SHOCK OR VIBRATION ABSORBER
                        .Including energy absorbing means or feature
          267/140.11
                            (e.g., supplemental vehicle equipment, such as motor mou
nt,
                            seat, etc., including additional fluid or friction energ
У
                            absorber)
          267/140.13
                       ..Axial
    277/318
                   (0 OR, 2 XR)
          Class
                  277 : SEAL FOR A JOINT OR JUNCTURE
          277/317
                        SEAL COMBINED WITH INDICATOR, SAMPLER, OR
                            INSPECTION FEATURE
          277/318
                        .Fluid pressure
                   (0 OR, 2 XR)
  2 277/375
```

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10662348 CLSTITLES
               277 : SEAL FOR A JOINT OR JUNCTURE
                     SEAL BETWEEN RELATIVELY MOVABLE PARTS (I.E.,
        277/345
                            DYNAMIC SEAL)
                      .Relatively rotatable radially extending
        277/358
                            sealing face member (e.g., face, mechanical, etc.)
                      .. Installation, removal, assembly, disassembly,
        277/370
                           or repair feature
        277/371
                      ... Unitized seal assembly (e.g., cartridge,
                          etc.)
        277/375
                      .... Mounted in housing or casing
               (0 OR, 2 XR)
277 : SEAL FOR A JOINT OR JUNCTURE
2 277/408
       Class
                      SEAL BETWEEN RELATIVELY MOVABLE PARTS (I.E.,
                           DYNAMIC SEAL)
                      .Relatively rotatable radially extending
        277/358
                          sealing face member (e.g., face, mechanical, etc.)
                      .. Introduction, circulation, or removal of
        277/408
                         fluid
                 (0 OR, 2 XR)
2 310/115
               310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
        Class
                     DYNAMOELECTRIC
        310/10
        310/40R
                      .Rotary
                      ..Plural rotary elements
        310/114
                      ... Field and armature both rotate
        310/115
                 (1 OR, 1 XR)
  310/156.32
                310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
        Class
        310/10
                     DYNAMOELECTRIC
        310/40R
                      .Rotary
                      .. Permanent magnet machines
        310/152
                      ...Permanent magnet rotor
        310/156.01
        310/156.32
                     ....Including an axial air gap
2 310/156.36
                 (0 OR, 2 XR)
                310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
        Class
        310/10
                      DYNAMOELECTRIC
        310/40R
                      .Rotary
                      .. Permanent magnet machines
        310/152
                      ...Permanent magnet rotor
        310/156.01
                      ....Including an axial air gap
        310/156.32
                      .....With plural sets of rotating magnets
        310/156.36
2 310/166
                 (1 OR, 1 XR)
                310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
        Class
        310/10
                      DYNAMOELECTRIC
        310/40R
                      .Rotary
                      ..A.C.
        310/159
        310/166
                      ...Induction
  310/178
                (1 OR, 1 XR)
                310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
        Class
        310/10
                      DYNAMOELECTRIC
        310/40R
                      .Rotary
                      ..D.C.
        310/177
                      ...Homopolar
        310/178
```

(0 OR, 2 XR)

2 310/179

### 10662348 CLSTITLES Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE 310/10 DYNAMOELECTRIC .Rotary 310/40R ..Windings and core structure 310/179 (0 OR, 2 XR) 2 310/185 Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE DYNAMOELECTRIC 310/10 310/40R .Rotary 310/179 ..Windings and core structure ... Field or excitation windings or structure 310/180 310/184 ....Plural field windings .....Plural sets of poles 310/185 (1 OR, 1 XR) 2 310/254 Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE DYNAMOELECTRIC 310/10 .Rotary 310/40R 310/254 ..Stator structure (1 OR, 1 XR) Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE 2 310/261 DYNAMOELECTRIC 310/10 .Rotary 310/40R 310/261 ..Rotor structure (1 OR, 1 XR) 2 310/40MM Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE DYNAMOELECTRIC 310/10 310/40R .Rotary 310/40MM ..Miniature motors (1 OR, 1 XR) 2 310/68B Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE 310/10 DYNAMOELECTRIC .Rotary 310/40R ..With other elements 310/66 310/68R ...Electric circuit elements 310/68B ....Condition responsive (e.g., position, torque, etc.) 2 310/89 (0 OR, 2 XR) 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE Class 310/10 DYNAMOELECTRIC 310/40R .Rotary ..With other elements 310/66 ... Mechanical shields or protectors 310/85 310/89 .... Housings, windows or covers 318/139 (2 OR, 0 XR) Class 318: ELECTRICITY: MOTIVE POWER SYSTEMS 318/139 BATTERY-FED MOTOR SYSTEMS (2 OR, 0 XR) 2 318/466 Class 318 : ELECTRICITY: MOTIVE POWER SYSTEMS

.Movement, position, or limit-of-travel

318/445

318/466

AUTOMATIC AND/OR WITH TIME-DELAY MEANS (E.G.,

AUTOMATIC STARTING AND/OR STOPPING)

```
(0 OR, 2 XR)
318/539
              318 : ELECTRICITY: MOTIVE POWER SYSTEMS
      Class
                   MOTOR STRUCTURE ADJUSTMENT OR CONTROL
      318/538
      318/539
                    .Both armature and field structures rotatable
                       or adjustable
318/696
               (1 OR, 1 XR)
      Class
              318 : ELECTRICITY: MOTIVE POWER SYSTEMS
      318/696
                   OPEN-LOOP STEPPING MOTOR CONTROL SYSTEMS
 318/701
               (2 OR, 0 XR)
      Class
              318 : ELECTRICITY: MOTIVE POWER SYSTEMS
      318/700
                    SYNCHRONOUS MOTOR SYSTEMS
      318/701
                    .Hysteresis or reluctance motor systems
318/773
               (1 OR, 1 XR)
              318 : ELECTRICITY: MOTIVE POWER SYSTEMS
      Class
      318/727
                    INDUCTION MOTOR SYSTEMS
                   .Primary circuit control ..Plural speed
      318/767
      318/772
      318/773
                    ...Pole changing
322/32
               (2 OR, 0 XR)
              322 : ELECTRICITY: SINGLE GENERATOR SYSTEMS
      Class
                   AUTOMATIC CONTROL OF GENERATOR OR DRIVING MEANS
      322/17
      322/29
                    .Speed or frequency of generator
      322/32
                    .. Frequency responsive devices or networks
               (2 OR, 0 XR)
324/161
              324 : ELECTRICITY: MEASURING AND TESTING
      Class
      324/160
                   ELECTRICAL SPEED MEASURING
      324/161
                   .Speed comparing means
               (0 OR, 2 XR)
324/166
      Class
              324 : ELECTRICITY: MEASURING AND TESTING
                   ELECTRICAL SPEED MEASURING
      324/160
      324/166
                    .Including speed-related frequency generator
360/133
               (0 OR, 2 XR)
      Class
              360 : DYNAMIC MAGNETIC INFORMATION STORAGE OR
                     RETRIEVAL
      360/131
                    RECORD MEDIUM
      360/132
                   .In container
      360/133
                    ..For disk
 366/147
               (1 OR, 1 XR)
      Class 366 : AGITATING
      366/144
                    WITH HEATING OR COOLING
      366/147
                    .Medium in stirrer or mixing chamber
               (1 OR, 1 XR)
366/84
              366 : AGITATING
      Class
                    RUBBER OR HEAVY PLASTIC WORKING
      366/69
      366/79
                    .Stirrer is through-pass screw conveyor
      366/83
                   ..Plural screw conveyors on separate shafts
      366/84
                    ...In parallel intercommunicating mixing
                       chambers
```

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2 366/89 (0 OR, 2 XR)
Class 366 : AGITATING
                     RUBBER OR HEAVY PLASTIC WORKING
         366/69
                      .Stirrer is through-pass screw conveyor
         366/79
                      ..Varying diameter of shaft
         366/89
         07 (1 OR, 1 XR)
Class 384 : BEARINGS
 2 384/107
                  ROTARY BEARING
         384/91
         384/100
                      .Fluid bearing
         384/107
                      ..Radial and thrust
         10 (0 OR, 2 XR)
Class 384 : BEARINGS
 2 384/110
                 ROTARY BEARING
.Fluid bearing
..Radial and thrust
         384/91
         384/100
         384/107
         384/110
                       ...Conical
                 (0 OR, 2 XR)
 2 384/448
         Class
                 384 : BEARINGS
                    ROTARY BEARING
         384/91
         384/445
                      .Antifriction bearing
                       .. Sensor or inspection features; liquid metal
         384/448
                          or shipping protection features; bearing member integral
                          with seal
                 (1 OR, 1 XR)
 2 415/108
         Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
                       CASING AND SPACED HOUSING WITH SPACE VENTED TO
         415/108
                          WORKING FLUID
                 (2 OR, 0 XR)
  2 415/112
         Class 415: ROTARY KINETIC FLUID MOTORS OR PUMPS
                       WITH LUBRICATING, SEALING, PACKING OR BEARING
          415/110
                            MEANS HAVING INTERNAL WORKING FLUID CONNECTION (E.G., F
LUID
                            OR FLUID BIASED SEAL, ETC.)
                       .For shaft sealing, packing, lubricating or
         415/111
                            bearing means
          415/112
                        .. With inlet and outlet connections
                 (0 OR, 2 XR)
         Class 415: ROTARY KINETIC FLUID MOTORS OR PUMPS
                       WITH LUBRICATING, SEALING, PACKING OR BEARING
                            MEANS HAVING INTERNAL WORKING FLUID CONNECTION (E.G., F
LUID
                            OR FLUID BIASED SEAL, ETC.)
          415/111
                       .For shaft sealing, packing, lubricating or
                            bearing means
          415/113
                        .. Fluid biased, movable or resilient portion
  2 415/115
                 (2 OR, 0 XR)
          Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
          415/115
                       WITH PASSAGE IN BLADE, VANE, SHAFT OR ROTARY
                           DISTRIBUTOR COMMUNICATING WITH WORKING FLUID
  2 415/176
                 (0 OR, 2 XR)
          Class 415: ROTARY KINETIC FLUID MOTORS OR PUMPS
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	415/175	10662348_CLSTITLES INCLUDING ADDITIONAL MEANS CAUSING OR CONTROLLING FLUID FLOW FOR HEAT EXCHANGING, LUBRICATING
OR		SEALING
	415/176	.Means subjected to or is working fluid
2	415/199.5 (0 Class 415 415/182.1 415/198.1 415/199.4 415/199.5	<pre>: ROTARY KINETIC FLUID MOTORS OR PUMPS WORKING FLUID PASSAGE OR DISTRIBUTING MEANS           ASSOCIATED WITH RUNNER (E.G., CASING, ETC.) .Plural rigidly related blade setsIncluding an axial-flow blade setPlural serial axial-flow blade sets</pre>
2	415/229 (0 Class 415 415/229	: ROTARY KINETIC FLUID MOTORS OR PUMPS
2	415/230 (0 Class 415 415/229 415/230	OR, 2 XR)  : ROTARY KINETIC FLUID MOTORS OR PUMPS BEARING, SEAL, OR LINER BETWEEN SHAFT OR SHAFT SLEEVE AND STATIC PART .Seal
2	415/231 (0 Class 415 415/229 415/230 415/231	S: ROTARY KINETIC FLUID MOTORS OR PUMPS BEARING, SEAL, OR LINER BETWEEN SHAFT OR SHAFT SLEEVE AND STATIC PART .Seal
2	415/26 (0	
2		OOR, 2 XR)  5: ROTARY KINETIC FLUID MOTORS OR PUMPS WITH CONTROL MEANS RESPONSIVE TO NON-CYCLIC CONDITION SENSING, CENTRIFUGAL ACTUATION OR TORQUE .Temperature or fluid force responsive member Fluid force responsive member controls
		working fluid
2		OOR, 2 XR)  S: FLUID REACTION SURFACES SUSTAINED ANCILLARY MOVEMENT OF ROTARY WORKING MEMBER (E.G., CYCLIC FEATHERING, ETC.) .Responsive to fixed actuator (e.g., cam or trip, etc.)Axial camSelectively adjustable
2		O OR, 2 XR)

Class 416 : FLUID REACTION SURFACES

416/95 WITH HEATING, COOLING OR THERMAL INSULATION

MEANS

416/96R .Changing state mass within or fluid flow

through working member or carrier

416/96A ..Blade inserts

2 416/97R (0 OR, 2 XR)

Class 416: FLUID REACTION SURFACES

416/95 WITH HEATING, COOLING OR THERMAL INSULATION

MEANS

416/96R .Changing state mass within or fluid flow

through working member or carrier

416/97R ...Flow exhausted to working fluid

2 417/203 (0 OR, 2 XR)

Class 417 : PUMPS

417/199.1 DIVERSE PUMPS

417/201 .Including rotary nonexpansible chamber type

417/203 ..Preceding diverse pump

2 417/204 (2 OR, 0 XR)

Class 417 : PUMPS

417/199.1 DIVERSE PUMPS

417/204 .Moving partition or cylinder of rotary pump

forms or actuates reciprocating pump

2 417/269 (0 OR, 2 XR)

Class 417 : PUMPS

417/269 THREE OR MORE CYLINDERS ARRANGED IN PARALLEL,

RADIAL, OR CONICAL RELATIONSHIP WITH ROTARY TRANSMISSION

AXTS

2 417/42 (2 OR, 0 XR)

Class 417 : PUMPS

417/1 CONDITION RESPONSIVE CONTROL OF PUMP DRIVE

MOTOR

417/42 .In response to pump speed

2 417/423.12 (0 OR, 2 XR)

Class 417: PUMPS

417/321 MOTOR DRIVEN

417/410.1 .Electric or magnetic motor

417/423.1 .. Rotary motor and rotary nonexpansible chamber

pump

417/423.12 ... Having bearing

2 417/45 (0 OR, 2 XR)

Class 417 : PUMPS

417/1 CONDITION RESPONSIVE CONTROL OF PUMP DRIVE

MOTOR

417/44.1 .By control of electric or magnetic drive motor

417/45 ..By changing electrical characteristic of

motor or motor circuit

2 417/486 (0 OR, 2 XR)

Class 417 : PUMPS

417/437 EXPANSIBLE CHAMBER TYPE

417/486 .Plura	pumping	members	in	single	pump	chamber
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			· ·
2	425/379.1 Class 425/376.2 425/378.2 425/379.2	425 1 1	: PLASTIC ARTICLE OR EARTHENWARE SHAPING OR TREATING: APPARATUS STOCK PRESSURIZING MEANS OPERABLY ASSOCIATED WITH DOWNSTREAM SHAPING ORIFICE .Including heating or cooling means
2	433/25	433	: DENTISTRY APPARATUS .Having motor or means to transmit motion from motor to tool (e.g., "engine")
2	433/132 Class 433/25 433/103 433/114 433/131 433/132	433	: DENTISTRY APPARATUS .Having motor or means to transmit motion from motor to tool (e.g., "engine")
2	494/37 Class 494/37		OR, 1 XR) : IMPERFORATE BOWL: CENTRIFUGAL SEPARATORS PROCESS

# Butler, Douglas

From:

**PLUS** 

Sent:

Wednesday, March 03, 2004 9:09 AM

To:

Butler, Douglas

Subject:

PLUS Results for 10662348

Here are the PLUS search results for 10662348.

This search was prepared by the staff of the Scientific and Technical Information Center, SIRA. If you have questions or comments about this search, please reply via email to PLUS@uspto.gov.









10662348\_WEST.tx









10662348\_CLSTITLES.t

10662348\_WDS.txt

### 10662348 LIST

PLUS Search Results for S/N 10662348, Searched March 03, 2004

The Patent Linguistics Utility System (PLUS) is a USPTO automated search system for U.S. Patents from 1971 to the present. PLUS is a query-by-example search system which produces a list of patents that are most closely related linguistically to the application searched. This search was prepared by the staff of the Scientific and Technical Information Center, SIRA.

5678786	4400659	4920293
4831298	4407258	4922406
4973233	4409505	4955791
5394283	4425883	4986740
5456653	4437213	5003686
4307309	4445822	5015149
4412796	4447220	5176261
4460319	4450813	5180225
·4506558	4455499	5197861
4619349	4461534	5215436
4628245	4468604	5216339
4632337	4477760	5228828
4759324	4479404	5231284
4800311	4481766	5231342
4834623	4491340	5237247
4858304	4497167	5249918
4903497	4500269	5251833
4914335	4525123	5252039
5189323	4531079	5254918
5191250	RE31965	5257872
5214365	4534754	5257672
5334894	4535373	5269126
5346441	4533373	5273356
	4544317	5279495
5373436		
5418414	4557679	5289069
5481585	4562397	5295301
5518493	4562805	5309743
5681153	4562803	5315077
5706658	4564329	5320508
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5844342	4575677	5333788
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6005358	4580019	5340274
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6133664	4616165	5350987
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6210103	4773210	5357180
6226988	4784196	5374039
4249896	4795315	5382089
4257280	4830570	5402026
4267647	4831827	5417507
4274804	4837474	5424887
4276511	4847555	5427361
4292008	4853572	5430519
4319398	4854834	5452991
4327299	4866323	5455729
4329601	4880354	5471104
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4388579	4900292	5489193

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Page 3

# 10662348\_CLS Most Frequently Occurring Classifications of Patents Returned From A Search of 10662348 on March 03, 2004

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Original Classifications
     123/216
     310/49R
     318/254
     60/487
     310/90
     360/97.03
     29/598
  2
     318/139
  2
     318/466
  2
     318/701
  2
     322/32
  2
     324/161
  2
     415/112
  2
     415/115
  2
     417/204
  2
     417/42
     433/132
Cross-Reference Classifications
  6 310/268
  6 310/42
    318/254
    123/242
    310/112
    310/114
  4
    310/67R
    360/98.07
  4
    360/99.08
     91/485
  3
  3
    310/198
  3
    310/68R
    310/90
    318/138
    415/111
    417/205
    417/410.3
     29/596
     29/598
    180/65.7
 2
    180/65.8
 2
    277/318
 2
   277/375
 2
    277/408
 2
    310/115
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    310/156.36
 2
    310/162
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    310/179
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    310/185
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    310/89
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    318/539
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    324/166
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    360/133
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    366/89
    384/110
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415/113
  2
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    415/176
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    415/199.5
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    415/229
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    415/230
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    415/231
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    415/26
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    415/49
  2
    416/114
    416/96A
  2
  2
    416/97R
  2
    417/203
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    417/269
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    417/423.12
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    417/45
  2
    417/462
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     417/486
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     418/201.1
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     425/379.1
    433/126
Combined Classifications
  9 318/254
  6 310/268
    310/42
  6
  6
    310/90
  5
     123/216
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     123/242
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     310/114
    310/49R
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    310/67R
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    360/98.07
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  4
    310/112
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    360/99.08
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     29/596
     60/487
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     91/485
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    310/162
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    310/198
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    310/68R
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    318/138
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    360/97.03
  3
    415/111
  3
    417/205
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    417/410.3
  3
    417/462
  3
    418/201.1
 2
    123/450
 2
    180/65.7
    180/65.8
 2 267/140.12
 2 267/140.13
 2 277/318
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2 277/375

277/408

310/115 310/156.32

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2 384/448

# 10662348\_CLS

2 310/156.36 2 310/166 2 310/178 2 310/179 2 310/185 2 310/254 2 310/261 2 310/40MM 2 310/68B 2 310/89 2 318/139 2 318/466 2 318/539 2 318/696 318/701 318/773 2 2 322/32 324/161 324/166 2 2 2 360/133 366/147 366/84 366/89 2 2 2 2 2 384/107 384/110 384/448 2 2 415/108 415/112 415/113 415/115 2 2 2 2 2 415/176 2 415/199.5 2 415/229 2 415/230 2 415/231 2 415/26 2 415/49 2 416/114 2 416/96A 2 416/97R 2 417/203 2 417/204 417/269 417/42 417/423.12 417/45 417/486 2 425/379.1

2

433/126 433/132 494/37

Titles of Most Frequently Occurring Classifications of Patents Returned From A Search of 10662348 on March 03, 2004

```
9 318/254
                (4 OR, 5 XR)
       Class
               318 : ELECTRICITY: MOTIVE POWER SYSTEMS
                     SELF-COMMUTATED IMPULSE OR RELUCTANCE MOTORS
       318/254
 310/268
                (0 OR, 6 XR)
       Class
               310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
       310/10
                     DYNAMOELECTRIC
       310/40R
                     .Rotary
       310/261
                    ..Rotor structure
       310/264
                     ... Armatures
       310/268
                     ....Disc
 310/42
                (0 OR, 6 XR)
       Class
               310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
                    DYNAMOELECTRIC
       310/10
       310/40R
                     .Rotary
       310/42
                     .. With assembling, metal casting or machining
                        feature
                (3 OR, 3 XR)
  310/90
       Class
               310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
       310/10
                     DYNAMOELECTRIC
       310/40R
                    .Rotary
       310/66
                     ..With other elements
       310/90
                     ...Bearing or air-gap adjustment or bearing
                        lubrication
  123/216
               (4 OR, 1 XR)
               123 : INTERNAL-COMBUSTION ENGINES
       Class
       123/200
                     ROTARY
       123/216
                     .With charge treatment means
 123/242
                (1 OR, 4 XR)
       Class
               123 : INTERNAL-COMBUSTION ENGINES
       123/200
                     ROTARY
       123/241
                     .With compression, combustion, and expansion in
                         a single variable volume
       123/242
                     ..Planetating rotor
 310/114
               (1 OR, 4 XR)
       Class
               310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
       310/10
                    DYNAMOELECTRIC
       310/40R
                    .Rotary
       310/114
                    ..Plural rotary elements
 310/49R
               (4 OR, 1 XR)
       Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
       310/10
                    DYNAMOELECTRIC
       310/40R
                    .Rotary
       310/46
                    .. Magnetic motors
       310/49R
                    ...Step-by-step
 310/67R
                (1 OR, 4 XR)
       Class
               310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
       310/10
                    DYNAMOELECTRIC
```

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```
10662348 CLSTITLES
        310/40R
                      .Rotary
        310/66
                      ..With other elements
        310/67R
                      ... Inbuilt or incorporated unit
  360/98.07
                 (1 OR, 4 XR)
        Class
                360 : DYNAMIC MAGNETIC INFORMATION STORAGE OR
                        RETRIEVAL
        360/88
                      RECORD TRANSPORT WITH HEAD STATIONARY DURING
                            TRANSDUCING
        360/97.01
                     .Disk record
        360/98.01
                      ..Plural disks
        360/98.07
                      ...Rotational drive detail
    29/598
                (2 OR, 2 XR)
                029 : METAL WORKING
        Class
        29/592
                    METHOD OF MECHANICAL MANUFACTURE
        29/592.1
                     .Electrical device making
        29/596
                     ..Dynamoelectric machine
        29/598
                      ...Rotor
   310/112
                 (0 OR, 4 XR)
                310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
        Class
        310/10
                     DYNAMOELECTRIC
        310/40R
                     .Rotary
        310/112
                      .. Plural units, structurally united
  360/99.08
                 (0 OR, 4 XR)
                360 : DYNAMIC MAGNETIC INFORMATION STORAGE OR
        Class
                        RETRIEVAL
        360/88
                      RECORD TRANSPORT WITH HEAD STATIONARY DURING
                           TRANSDUCING
        360/97.01
                      .Disk record
        360/99.08
                      ..Rotational drive detail
    29/596
                (1 OR, 2 XR)
        Class
                029 : METAL WORKING
        29/592
                   METHOD OF MECHANICAL MANUFACTURE
        29/592.1
                    .Electrical device making
        29/596
                     ..Dynamoelectric machine
                 (3 OR, 0 XR)
    60/487
       Class
                060 : POWER PLANTS
        60/325
                     PRESSURE FLUID SOURCE AND MOTOR
        60/487
                      .Input pump and rotary output motor system
                         having displacement varying type of direction or speed
                         selector
    91/485
                 (0 OR, 3 XR)
       Class
                091 : MOTORS: EXPANSIBLE CHAMBER TYPE
       91/472
                     THREE OR MORE CYLINDERS ARRANGED IN PARALLEL
                          RADIAL OR CONICAL RELATIONSHIP WITH ROTARY TRANSMISSION
       91/484
                      .Control valve seating surface contact
                         maintained by fluid pressure bias
       91/485
                      ..Disc valve
3 310/162
                (1 OR, 2 XR)
       Class
               310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
       310/10
                     DYNAMOELECTRIC
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10662348_CLSTITLES
          310/40R
                        .Rotary
          310/159
                        ..A.C.
          310/162
                        ... Synchronous
  3 310/198
                   (0 OR, 3 XR)
                  310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
          Class
          310/10
                        DYNAMOELECTRIC
          310/40R
                       .Rotary
                       ..Windings and core structure
          310/179
          310/195
                       ...Armature or primary
          310/198
                       ....Plural windings
   310/68R
                   (0 OR, 3 XR)
          Class
                  310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
          310/10
                       DYNAMOELECTRIC
          310/40R
                       .Rotary
          310/66
                       ..With other elements
          310/68R
                       ... Electric circuit elements
    318/138
                  (0 OR, 3 XR)
          Class
                  318 : ELECTRICITY: MOTIVE POWER SYSTEMS
          318/138
                        SPACE-DISCHARGE-DEVICE COMMUTATED MOTOR
    360/97.03
                  (3 OR, 0 XR)
                  360 : DYNAMIC MAGNETIC INFORMATION STORAGE OR
          Class
                          RETRIEVAL
          360/88
                        RECORD TRANSPORT WITH HEAD STATIONARY DURING
                              TRANSDUCING
          360/97.01
                       .Disk record
          360/97.02
                        .. Environmental control (e.g., air filter,
                            temperature control)
          360/97.03
                        ...Plural disks
    415/111
                  (0 OR, 3 XR)
          Class
                 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
          415/110
                        WITH LUBRICATING, SEALING, PACKING OR BEARING
                           MEANS HAVING INTERNAL WORKING FLUID CONNECTION (E.G., FL
UID
                            OR FLUID BIASED SEAL, ETC.)
          415/111
                        . For shaft sealing, packing, lubricating or
                           bearing means
    417/205
                   (0 OR, 3 XR)
          Class 417: PUMPS
          417/199.1
                      DIVERSE PUMPS
          417/205
                       .Series
    417/410.3
                 (0 OR, 3 XR)
          Class
                 417 : PUMPS
          417/321
                      MOTOR DRIVEN
          417/410.1
                      .Electric or magnetic motor
          417/410.3
                      .. Rotary expansible chamber pump
    417/462
                  (1 OR, 2 XR)
          Class
                 417 : PUMPS
          417/437
                       EXPANSIBLE CHAMBER TYPE
          417/460
                       .Moving cylinder
          417/462
                        .. Unidirectionally rotating cylinder
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418/201.1
                   (1 OR, 2 XR)
                  418 : ROTARY EXPANSIBLE CHAMBER DEVICES
          Class
          418/191
                        INTERENGAGING ROTATING MEMBERS
                        .Helical or herringbone
          418/201.1
                   (1 OR, 1 XR)
    123/450
                  123 : INTERNAL-COMBUSTION ENGINES
          Class
          123/434
                        CHARGE FORMING DEVICE (E.G., POLLUTION CONTROL)
          123/445
                        .Fuel injection system
          123/446
                        .. Fuel pump flow regulation
          123/448
                        ... Sequential distributor
          123/450
                        ....Rotary distributor
    180/65.7
                   (0 OR, 2 XR)
                  180 : MOTOR VEHICLES
          Class
          180/54.1
                        POWER
          180/65.1
                        .Electric
          180/65.6
                        .. With gearing between electric motor and drive
          180/65.7
                        ... Gearing is a changeable ratio gearing
    180/65.8
                   (0 OR, 2 XR)
          Class
                  180 : MOTOR VEHICLES
          180/54.1
                        POWER
          180/65.1
                        .Electric
          180/65.8
                        .. With electronic devices (logic gates,
                           semi-conductors, vacuum tubes, etc.) in control circuit
                   (1 OR, 1 XR)
    267/140.12
                  267 : SPRING DEVICES
          Class
                        RESILIENT SHOCK OR VIBRATION ABSORBER
          267/136
          267/140.11
                        .Including energy absorbing means or feature
                             (e.g., supplemental vehicle equipment, such as motor mou
nt,
                            seat, etc., including additional fluid or friction energ
У
                            absorber)
          267/140.12
                        .. Having concentric coaxial spring between
                           plural confining means for radial force
     267/140.13
                   (1 OR, 1 XR)
          Class
                  267 : SPRING DEVICES
          267/136
                        RESILIENT SHOCK OR VIBRATION ABSORBER
          267/140.11
                        .Including energy absorbing means or feature
                             (e.g., supplemental vehicle equipment, such as motor mou
nt,
                            seat, etc., including additional fluid or friction energ
У
                            absorber)
          267/140.13
                        ..Axial
    277/318
                   (0 OR, 2 XR)
                  277 : SEAL FOR A JOINT OR JUNCTURE
                        SEAL COMBINED WITH INDICATOR, SAMPLER, OR
          277/317
                            INSPECTION FEATURE
          277/318
                        .Fluid pressure
  2 277/375
                   (0 OR, 2 XR)
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10662348 CLSTITLES
                277 : SEAL FOR A JOINT OR JUNCTURE
                      SEAL BETWEEN RELATIVELY MOVABLE PARTS (I.E.,
        277/345
                             DYNAMIC SEAL)
                      .Relatively rotatable radially extending
        277/358
                            sealing face member (e.g., face, mechanical, etc.)
                      .. Installation, removal, assembly, disassembly,
        277/370
                           or repair feature
                      ... Unitized seal assembly (e.g., cartridge,
        277/371
                          etc.)
        277/375
                      .... Mounted in housing or casing
                (0 OR, 2 XR)
  277/408
                277 : SEAL FOR A JOINT OR JUNCTURE
        Class
                      SEAL BETWEEN RELATIVELY MOVABLE PARTS (I.E.,
        277/345
                           DYNAMIC SEAL)
                      .Relatively rotatable radially extending
        277/358
                          sealing face member (e.g., face, mechanical, etc.)
                      .. Introduction, circulation, or removal of
        277/408
                         fluid
2 310/115
                 (0 OR, 2 XR)
                310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
        Class
        310/10
                      DYNAMOELECTRIC
        310/40R
                      .Rotary
                      ..Plural rotary elements
        310/114
                      ... Field and armature both rotate
        310/115
                (1 OR, 1 XR)
  310/156.32
                310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
        Class
                      DYNAMOELECTRIC
        310/10
        310/40R
                      Rotary
        310/152
                      ..Permanent magnet machines
        310/156.01
                      ...Permanent magnet rotor
        310/156.32
                      ....Including an axial air gap
                 (0 OR, 2 XR)
 310/156.36
                310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
        Class
        310/10
                      DYNAMOELECTRIC
        310/40R
                      .Rotary
                      .. Permanent magnet machines
        310/152
        310/156.01
                      ...Permanent magnet rotor
                      ....Including an axial air gap
        310/156.32
        310/156.36
                      .....With plural sets of rotating magnets
                 (1 OR, 1 XR)
  310/166
                310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
        Class
        310/10
                      DYNAMOELECTRIC
        310/40R
                      .Rotary
                      ..A.C.
        310/159
        310/166
                      ...Induction
  310/178
                 (1 OR, 1 XR)
                310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
        Class
        310/10
                      DYNAMOELECTRIC
                      .Rotary
        310/40R
                      ..D.C.
        310/177
                      ... Homopolar
        310/178
  310/179
                 (0 OR, 2 XR)
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10662348 CLSTITLES 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE DYNAMOELECTRIC 310/10 310/40R .Rotary ..Windings and core structure 310/179 (0 OR, 2 XR) 310/185 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE Class DYNAMOELECTRIC 310/10 310/40R .Rotary ..Windings and core structure 310/179 ... Field or excitation windings or structure 310/180 ....Plural field windings 310/184 .....Plural sets of poles 310/185 (1 OR, 1 XR) 2 310/254 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE Class 310/10 DYNAMOELECTRIC 310/40R .Rotary 310/254 ..Stator structure 2 310/261 (1 OR, 1 XR) 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE Class 310/10 DYNAMOELECTRIC 310/40R .Rotary 310/261 ..Rotor structure 310/40MM (1 OR, 1 XR) 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE Class 310/10 DYNAMOELECTRIC 310/40R .Rotary 310/40MM ..Miniature motors 310/68B (1 OR, 1 XR) Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE 310/10 DYNAMOELECTRIC 310/40R .Rotary ..With other elements 310/66 ... Electric circuit elements 310/68R 310/68B ....Condition responsive (e.g., position, torque, etc.) 310/89 (0 OR, 2 XR) Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE 310/10 DYNAMOELECTRIC 310/40R .Rotary 310/66 ..With other elements 310/85 ...Mechanical shields or protectors 310/89 .... Housings, windows or covers 318/139 (2 OR, 0 XR) 318 : ELECTRICITY: MOTIVE POWER SYSTEMS Class 318/139 BATTERY-FED MOTOR SYSTEMS

AUTOMATIC AND/OR WITH TIME-DELAY MEANS (E.G.,

AUTOMATIC STARTING AND/OR STOPPING)

.Movement, position, or limit-of-travel

318 : ELECTRICITY: MOTIVE POWER SYSTEMS

(2 OR, 0 XR)

Class

318/445

318/466

2   318/539	_		, -	10662348_CLSTITLES
Class   318   ELECTRICITY: MOTIVE FOWER SYSTEMS   OPEN-LOOP STEPPING MOTOR CONTROL SYSTEMS   OPEN-LOOP STEPPING MOTOR CONTROL SYSTEMS   318/700   318   ELECTRICITY: MOTIVE POWER SYSTEMS   SYNCHRONOUS MOTOR SYSTEMS   SYNCHRONOUS MOTOR SYSTEMS   SYNCHRONOUS MOTOR SYSTEMS   SYNCHRONOUS MOTOR SYSTEMS   OPEN-LOOP SYSTEMS   SYNCHRONOUS MOTOR SYSTEMS   OPEN-LOOP SYSTEM	2	Class	318	: ELECTRICITY: MOTIVE POWER SYSTEMS MOTOR STRUCTURE ADJUSTMENT OR CONTROL .Both armature and field structures rotatable
Class   318   ELECTRICITY: MOTIVE POWER SYSTEMS   318/701   SYNCHRONOUS MOTOR SYSTEMS   318/703   Class   318   ELECTRICITY: MOTIVE POWER SYSTEMS   318/727   318/727   318/727   318/727   318/727   318/727   318/727   318/727   318/727   318/727   318/727   318/727   318/727   318/727   318/727   318/727   Primary circuit control   318/727   318/727   Primary circuit control   318/732   Primary circuit control   318/732   Primary circuit control   318/732   Primary circuit control   318/732   Primary circuit control   318/732   Primary circuit control   318/732   Primary circuit control   318/732   Primary circuit control   318/732   Primary circuit control   318/732   Primary circuit control   318/732   Primary circuit control   318/732   Primary circuit control   318/732   Primary circuit control   318/732   Primary circuit control   318/732   Primary circuit control   328/152   Primary circuit control   Systems   Syst	2	Class	318	: ELECTRICITY: MOTIVE POWER SYSTEMS
Class   318	2	Class 318/700	318	: ELECTRICITY: MOTIVE POWER SYSTEMS SYNCHRONOUS MOTOR SYSTEMS
Class 322 : ELECTRICITY: SINGLE GENERATOR SYSTEMS AUTOMATIC CONTROL OF GENERATOR OR DRIVING MEANS 322/32Frequency responsive devices or networks  2 324/161 (2 OR, 0 XR)     Class 324 : ELECTRICITY: MEASURING AND TESTING 324/160	2	Class 318/727 318/767 318/772	318	: ELECTRICITY: MOTIVE POWER SYSTEMS INDUCTION MOTOR SYSTEMS .Primary circuit controlPlural speed
2   324/161	2	Class	322	: ELECTRICITY: SINGLE GENERATOR SYSTEMS
324/160 Speed comparing means  2 324/166 (0 OR, 2 XR)		322/29 322/32		.Speed or frequency of generatorFrequency responsive devices or networks
Class 324 : ELECTRICITY: MEASURING AND TESTING 324/166	2	324/160		ELECTRICAL SPEED MEASURING
Class 360: DYNAMIC MAGNETIC INFORMATION STORAGE OR RETRIEVAL 360/131 RECORD MEDIUM 360/132 .In container 360/133For disk  2 366/147 (1 OR, 1 XR) Class 366: AGITATING 366/144 WITH HEATING OR COOLING 366/147 .Medium in stirrer or mixing chamber  2 366/84 (1 OR, 1 XR) Class 366: AGITATING 366/69 RUBBER OR HEAVY PLASTIC WORKING 366/79 .Stirrer is through-pass screw conveyor 366/83In parallel intercommunicating mixing	2	Class 324/160	324	: ELECTRICITY: MEASURING AND TESTING ELECTRICAL SPEED MEASURING
360/131 RECORD MEDIUM 360/132 .In container 360/133For disk  2 366/147 (1 OR, 1 XR) Class 366 : AGITATING 366/144 WITH HEATING OR COOLING 366/147 .Medium in stirrer or mixing chamber  2 366/84 (1 OR, 1 XR) Class 366 : AGITATING 366/69 RUBBER OR HEAVY PLASTIC WORKING 366/79 .Stirrer is through-pass screw conveyor 366/83In parallel intercommunicating mixing	2			: DYNAMIC MAGNETIC INFORMATION STORAGE OR
Class 366: AGITATING 366/144 WITH HEATING OR COOLING 366/147 .Medium in stirrer or mixing chamber  2 366/84 (1 OR, 1 XR) Class 366: AGITATING 366/69 RUBBER OR HEAVY PLASTIC WORKING 366/79 .Stirrer is through-pass screw conveyor 366/83In parallel intercommunicating mixing		360/132		RECORD MEDIUM .In container
Class 366: AGITATING 366/69 RUBBER OR HEAVY PLASTIC WORKING 366/79 .Stirrer is through-pass screw conveyor 366/83In parallel intercommunicating mixing	2	Class 366/144	366	: AGITATING WITH HEATING OR COOLING
	2	Class 366/69 366/79 366/83	366	: AGITATING RUBBER OR HEAVY PLASTIC WORKING .Stirrer is through-pass screw conveyorPlural screw conveyors on separate shaftsIn parallel intercommunicating mixing

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2 366/89
                  (0 OR, 2 XR)
         Class
                 366 : AGITATING
         366/69
                   RUBBER OR HEAVY PLASTIC WORKING
          366/79
                      .Stirrer is through-pass screw conveyor
         366/89
                      ..Varying diameter of shaft
  2 384/107
                 (1 OR, 1 XR)
         Class
                 384 : BEARINGS
         384/91
                  ROTARY BEARING
          384/100
                      .Fluid bearing
         384/107
                      ..Radial and thrust
  2 384/110
                 (0 OR, 2 XR)
         Class 384 : BEARINGS
                  ROTARY BEARING
         384/91
         384/100
                      .Fluid bearing
         384/107
                      ..Radial and thrust
                      ...Conical
         384/110
  2 384/448
                 (0 OR, 2 XR)
         Class 384 : BEARINGS
         384/91
                      ROTARY BEARING
         384/445
                      .Antifriction bearing
          384/448
                       .. Sensor or inspection features; liquid metal
                          or shipping protection features; bearing member integral
                          with seal
  2 415/108
                 (1 OR, 1 XR)
         Class
                 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
         415/108
                       CASING AND SPACED HOUSING WITH SPACE VENTED TO
                          WORKING FLUID
   415/112
                  (2 OR, 0 XR)
                 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
          415/110
                       WITH LUBRICATING, SEALING, PACKING OR BEARING
                            MEANS HAVING INTERNAL WORKING FLUID CONNECTION (E.G., F
LUID
                            OR FLUID BIASED SEAL, ETC.)
         415/111
                        .For shaft sealing, packing, lubricating or
                           bearing means
         415/112
                       .. With inlet and outlet connections
  2 415/113
                  (0 OR, 2 XR)
         Class
                 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
                       WITH LUBRICATING, SEALING, PACKING OR BEARING MEANS HAVING INTERNAL WORKING FLUID CONNECTION (E.G., F
         415/110
LUID
                            OR FLUID BIASED SEAL, ETC.)
         415/111
                       .For shaft sealing, packing, lubricating or
                           bearing means
         415/113
                       .. Fluid biased, movable or resilient portion
                 (2 OR, 0 XR)
         Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
                       WITH PASSAGE IN BLADE, VANE, SHAFT OR ROTARY
                          DISTRIBUTOR COMMUNICATING WITH WORKING FLUID
  2 415/176
                 (0 OR, 2 XR)
                 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
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OR	415/175	10662348_CLSTITLES INCLUDING ADDITIONAL MEANS CAUSING OR CONTROLLING FLUID FLOW FOR HEAT EXCHANGING, LUBRICATING
OK	415/176	SEALING .Means subjected to or is working fluid
2	415/199.5 (0 Class 415 415/182.1 415/198.1 415/199.4 415/199.5	ASSOCIATED WITH RUNNER (E.G., CASING, ETC.) .Plural rigidly related blade sets
2		OR, 2 XR) : ROTARY KINETIC FLUID MOTORS OR PUMPS BEARING, SEAL, OR LINER BETWEEN SHAFT OR SHAFT SLEEVE AND STATIC PART
2		OR, 2 XR) : ROTARY KINETIC FLUID MOTORS OR PUMPS BEARING, SEAL, OR LINER BETWEEN SHAFT OR SHAFT SLEEVE AND STATIC PART .Seal
2	415/231 (0 Class 415 415/229 415/230 415/231	OR, 2 XR) : ROTARY KINETIC FLUID MOTORS OR PUMPS BEARING, SEAL, OR LINER BETWEEN SHAFT OR SHAFT SLEEVE AND STATIC PART .SealResiliently biased
2		OR, 2 XR) : ROTARY KINETIC FLUID MOTORS OR PUMPS WITH CONTROL MEANS RESPONSIVE TO NON-CYCLIC CONDITION SENSING, CENTRIFUGAL ACTUATION OR TORQUE .Responsive to moving member developed fluid force, current or pressure
2	415/49 (0 Class 415 415/13 415/47 415/49	OR, 2 XR) : ROTARY KINETIC FLUID MOTORS OR PUMPS WITH CONTROL MEANS RESPONSIVE TO NON-CYCLIC CONDITION SENSING, CENTRIFUGAL ACTUATION OR TORQUE .Temperature or fluid force responsive member Fluid force responsive member controls working fluid
2		OR, 2 XR) : FLUID REACTION SURFACES SUSTAINED ANCILLARY MOVEMENT OF ROTARY WORKING MEMBER (E.G., CYCLIC FEATHERING, ETC.) .Responsive to fixed actuator (e.g., cam or trip, etc.)Axial camSelectively adjustable
2	416/96A (0	OR, 2 XR)

416 : FLUID REACTION SURFACES Class

WITH HEATING, COOLING OR THERMAL INSULATION 416/95

**MEANS** 

.Changing state mass within or fluid flow 416/96R

through working member or carrier

..Blade inserts 416/96A

(0 OR, 2 XR) 2 416/97R

416 : FLUID REACTION SURFACES Class

WITH HEATING, COOLING OR THERMAL INSULATION 416/95

**MEANS** 

.Changing state mass within or fluid flow 416/96R

through working member or carrier

..Flow exhausted to working fluid 416/97R

(0 OR, 2 XR) 417/203

417 : PUMPS Class

DIVERSE PUMPS 417/199.1

.Including rotary nonexpansible chamber type 417/201

..Preceding diverse pump 417/203

(2 OR, 0 XR) 417/204

417 : PUMPS Class

DIVERSE PUMPS 417/199.1

.Moving partition or cylinder of rotary pump 417/204

forms or actuates reciprocating pump

(0 OR, 2 XR) 2 417/269

417 : PUMPS Class

THREE OR MORE CYLINDERS ARRANGED IN PARALLEL, 417/269

RADIAL, OR CONICAL RELATIONSHIP WITH ROTARY TRANSMISSION

(2 OR, 0 XR) 417/42

417 : PUMPS Class

CONDITION RESPONSIVE CONTROL OF PUMP DRIVE 417/1

MOTOR

.In response to pump speed 417/42

(0 OR, 2 XR) 417/423.12

417 : PUMPS Class

MOTOR DRIVEN 417/321

.Electric or magnetic motor 417/410.1

..Rotary motor and rotary nonexpansible chamber 417/423.1

pump

...Having bearing 417/423.12

(0 OR, 2 XR) 2 417/45

417 : PUMPS Class

CONDITION RESPONSIVE CONTROL OF PUMP DRIVE 417/1

MOTOR

.By control of electric or magnetic drive motor 417/44.1

.. By changing electrical characteristic of 417/45

motor or motor circuit

(0 OR, 2 XR) 2 417/486

417 : PUMPS Class

EXPANSIBLE CHAMBER TYPE 417/437

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417/486 .Plui	al pumping members	in single pu	ump chamber
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494/37

(0 OR, 2 XR) 2 425/379.1 425 : PLASTIC ARTICLE OR EARTHENWARE SHAPING OR Class TREATING: APPARATUS STOCK PRESSURIZING MEANS OPERABLY ASSOCIATED 425/376.1 WITH DOWNSTREAM SHAPING ORIFICE 425/378.1 .Including heating or cooling means ..Plural spaced 425/379.1 (0 OR, 2 XR) 433 : DENTISTRY 2 433/126 Class APPARATUS 433/25 .Having motor or means to transmit motion from 433/103 motor to tool (e.g., "engine") .. Hand-held tool or handpiece 433/114 ...Having means facilitating assembly or 433/126 disassembly of tool or handpiece (2 OR, 0 XR) 2 433/132 433 : DENTISTRY Class APPARATUS 433/25 .Having motor or means to transmit motion from 433/103 motor to tool (e.g., "engine") ..Hand-held tool or handpiece 433/114 ...Having motor 433/131 ....Rotary fluid turbine 433/132 2 494/37 (1 OR, 1 XR) 494 : IMPERFORATE BOWL: CENTRIFUGAL SEPARATORS Class PROCESS